

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE		ATTORNEY DOCKET NO.: 38203-6080C	SERIAL NO.: 10/727,081
INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §1.56, §1.97, and §1.98 PTO-1449 FORM		APPLICANTS: Smith et al.	
Sheet 1 of 4		FILING DATE: 12/02/2003	GROUP ART UNIT: Unknown




U.S. PATENT DOCUMENTS						
† EX'R INITIAL	*REF. #	PATENT NUMBER	DATE	NAME	U.S. CLASS/ SUBCLASS	FILING DATE (If appropriate)
SD	A*	4,861,148	08/29/89	Santo <i>et al.</i>	350/505	03/11/87
SD	B*	5,285,236	02/08/94	Jain	355/53	09/30/92
SD	C*	5,402,224	3/28/95	Hirukawa <i>et al.</i>	356/124	9/24/93
SD	D*	5,438,413	08/01/95	Mazor <i>et al.</i>	356/363	03/03/93
SD	E*	5,615,006	3/25/97	Hirukawa <i>et al.</i>	356/124	6/6/95
SD	F*	5,757,507	05/26/98	Ausschnitt <i>et al.</i>	356/401	11/20/95
SD	G*	5,877,861	3/2/99	Ausschnitt <i>et al.</i>	356/401	11/14/97
SD	H*	5,894,350	4/13/99	Hsieh <i>et al.</i>	356/399	6/12/98
SD	I*	6,079,256	06/27/00	Bareket	73/105	12/07/98
SD	J*	6,143,621	11/07/00	Tzeng <i>et al.</i>	438/401	06/14/99
SD	K*	6,259,525	7/10/01	David	356/399	2/24/00
FOREIGN PATENT DOCUMENTS						
† EX'R INITIAL	*REF. #					TRANSLATION (YES/NO)
		NONE				
OTHER DOCUMENTS						
† EX'R INITIAL	*REF. #	CITATION (Author, Article Title, Journal/Book Title, Date, Pertinent Pages, etc.)				
SD	L*	Armitage Jr., J.D. and Kirk, J.P., "Analysis of overlay distortion patterns", <i>SPIE</i> , 921:207-222, (1988)				
SD	M*	Bjorkholm <i>et al.</i> , "Reduction imaging at 14 nm using multilayer-coated optics: printing of features smaller than 0.1 μm ", <i>J. Vac. Sci. Technol.B.</i> , 8(6):1509-1543, (1990)				
SD	N*	Brunner, T.A., "Impact Of Lens Aberrations On Optical Lithography", <i>IBM Journal of Research and Development: Optical Lithography</i> 41(1-2):57-67, (1997) (http://www.research.ibm.com/journal/rd/411/brunner.html)				

EXAMINER'S SIGNATURE 	DATE CONSIDERED 4/5/06
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TITLE: METHOD AND APPARATUS FOR SELF-REFERENCED PROJECTION LENS DISTORTION MAPPING	

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §1.56, §1.97, and §1.98 PTO-1449 FORM Sheet 2 of 4	ATTORNEY DOCKET NO.: 38203-6080C	SERIAL NO.: 10/727,081
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OTHER DOCUMENTS		
W	O*	Bruning <i>et al.</i> , "Optical Lithography – Thirty years and three orders of magnitude", <i>SPIE</i> , <u>3051</u> :14-27, (1997)
M	P*	Cote <i>et al.</i> , "Micrascan™ III-performance of a third generation, catadioptric step and scan lithographic tool", <i>SPIE</i> , <u>3051</u> :806-816, (1997)
W	Q*	DeJule, R., "Mix-and Match: A Necessary Choice", <i>Semiconductor International</i> , <u>23</u> (2): 66-76, (Feb, 2000)
W	R*	Dooly, T. and Yang, Y., "Stepper matching for optimum line performance", <i>SPIE</i> , <u>3051</u> :426-432, (1997)
W	S*	Goodwin, F. and Pellegrini, J.C., "Characterizing Overlay Registration of Concentric 5X and 1X Stepper Exposure Fields using Interfield Data", <i>SPIE</i> , <u>3050</u> :407-417, (1997)
W	T*	Handbook of Microlithography, Micromachining, and Microfabrication, Book: Vol. 1, "Microlithography", Rai-Choudhury, P. (Ed.), SPIE Optical Engineering Press, SPIE, Bellingham, Washington, pages 417-418, (1997)
W	U*	Hasan <i>et al.</i> , "Automated Electrical measurements of Registration Errors in Step-and-Repeat optical Lithography Systems", <i>IEEE Transactions on Electron Devices</i> , <u>ED27</u> (12):2304-2312, (1980)
W	V*	Kemp <i>et al.</i> , "A "golden standard" wafer design for optical stepper characterization", <i>SPIE</i> , <u>1464</u> :260-266, (1991)
W	W*	KLA 5105, "Linewidth and Misregistration System", KLA 5105 Product Specifications, <i>KLA Instruments Corporation</i> , 2 pages, (1995)
W	X*	KLA 5200, "Value-added Overlay Metrology for Advanced Lithography", KLA 5200 Product Specifications, <i>KLA Instruments Corporation</i> , 2 pages, (1996)
W	Y*	Kodama, K. and Matsubara, E., "Measuring system XY-5i", <i>SPIE</i> , <u>2439</u> :144-155, (1995)
W	Z*	Leica LMS IPRO, "Fully automated mask and wafer metrology system", <i>Leica</i> , pamphlet pages 1-5.
W	AA*	Lin, B.J., "The Attenuated Phase-Shifting Mask", <i>Solid State Technology</i> , Special Series/Advanced Lithography, <u>35</u> (1):43-47, (January, 1992)
W	AB*	MacMillen, D. and Ryden, W.D., "Analysis of image field placement deviations of a 5X microlithographic reduction lens", <i>SPIE</i> , <u>334</u> :78-89, (1982)
W	AC*	Martin <i>et al.</i> , "Measuring Fab Overlay Programs", <i>SPIE</i> , <u>3677</u> :64-71(1999)
W	AD*	Mc Fadden, E.A. and Ausschnitt, C.P., "A Computer Aided Engineering Workstation For Registration Control", <i>SPIE</i> , <u>1087</u> :255-266, (1989)

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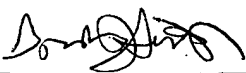
<p>IN THE UNITED STATES PATENT AND TRADEMARK OFFICE</p> <p>INFORMATION DISCLOSURE STATEMENT</p> <p>UNDER 37 CFR §1.56, §1.97, and §1.98</p> <p>PTO-1449 FORM</p> <p>Sheet 3 of 4</p>	<p>ATTORNEY DOCKET NO.:</p> <p>38203-6080C</p>	<p>SERIAL NO.:</p> <p>10/727,081</p>
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AE*	Mulkens <i>et al.</i> , "ArF Step And Scan Exposure System For 0.15 μ m Technology Node?", <i>SPIE</i> , <u>3679</u> :506-521, (1999)
AF*	Newnam, B.E. and Viswanathan, V.K., "Development of XUV projection lithograph at 60-80 nm", <i>SPIE</i> , <u>1671</u> :419-436, (1992)
AG*	<u>Numerical Recipes</u> , "The Art of Scientific Computing", Press et al. (Eds.), Cambridge University Press, New York, pages 52-64 (1990).
AH*	Pellegrini, J.C., "Comparisons of Six Different Intrafield Control Paradigms in an Advanced Mix-and-Match Environment", <i>SPIE</i> , <u>3050</u> :398-406, (1997)
AI*	Pellegrini <i>et al.</i> , "Super Sparse Overlay Sampling Plans: An Evaluation of Methods and Algorithms for Optimizing Overlay Quality Control and Metrology Tool Throughput", <i>SPIE</i> , <u>3677</u> :72-82, (1999)
AJ*	Preil, M.E. and McCormack, J.F.M., "A New Approach to Correlating Overlay and Yield", <i>SPIE</i> , <u>3677</u> :208-216, (1999)
AK*	Quaestor Q7, "Fully Automated Optical Metrology System for Advanced IC Production", Quaestor Q7 Product Specification, <i>BIO-RAD</i> , 2 pages
AL*	Raugh, M.R., "Error estimation for lattice methods of stage self-calibration", <i>SPIE</i> , <u>3050</u> :614-625, (1997)
AM*	Sullivan, N.T., "Semiconductor Pattern Overlay", <i>SPIE Critical Reviews of Optical Science and Technology</i> , <u>CR52</u> :160-188, (1994)
AN*	Takac <i>et al.</i> , "Self-calibration in two-dimensions: the experiment", <i>SPIE</i> , <u>2725</u> :130-146, (1996)
AO*	van den Brink <i>et al.</i> , "Direct-referencing automatic two-points reticle-to-wafer alignment using a projection column servo system", <i>SPIE</i> , <u>633</u> :60-71, (1986)
AP*	van den Brink <i>et al.</i> , "Matching Management Of Multiple Wafer Steppers Using A Stable Standard And A Matching Simulator", <i>SPIE</i> , <u>1087</u> :218-232, (1989)
AQ*	van den Brink <i>et al.</i> , "Matching Of Multiple Wafer Steppers For 0.35 μ m Lithography Using Advanced Optimization Schemes", <i>SPIE</i> , <u>1926</u> :188-207, (1993)
AR*	van den Brink <i>et al.</i> , "Matching Performance For Multiple Wafer Steppers Using An Advanced Metrology Procedure", <i>SPIE</i> , <u>921</u> :180-197, (1988)
AS*	van den Brink <i>et al.</i> , "New 0.54 Aperture i-Line Wafer Stepper With Field By Field Leveling Combined With Global Alignment", <i>SPIE</i> , <u>1463</u> :709-724, (1991)

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DS	AT*	van Schoot <i>et al.</i> , "0.7 NA DUV Step & Scan System For 150nm Imaging With Improved Overlay", <i>SPIE</i> , 3679:448-463, (1999)
M	AU*	Yost, A. and Wu, W., "Lens matching and distortion testing in a multi-stepper, sub-micron environment", <i>SPIE</i> , 1087:233-244, (1989)
M	AV*	Zavec <i>et al.</i> , "Life Beyond Mix-and-Match: Controlling Sub-0.18 μ m Overlay Errors", <i>Semiconductor International</i> , 23(8):205,206,208,210,212 and 214, (July, 2000)
M	AW*	Zavec, T.E., "Machine Models and Registration", <i>SPIE Critical Reviews of Optical Science and Technology</i> , CR52:134-159 (1994).

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